22.1.1 Damaged areas of spelter coating shall be painted in this sequence:
1. Zinc rich primer conforming to Section 711.21.
2. Red oxide lacquer primer.
3. Lacquer.

22.1.2 Areas of damaged polymeric coating only shall be painted in this sequence after the areas are rubbed with commercially available acetic acid (such as vinegar) and dried:
1. Red oxide lacquer primer.
2. Lacquer.

The primer and lacquer as specified above must be mutually compatible when applied and compatible with the polymeric coating. The red oxide primer and lacquer, which are commercially available, shall be allowed to completely dry between coats and before handling and backfilling. If the lacquer is applied from a spray can, a minimum of two coats is required. The first coat should provide a light covering, and the second coat should be applied heavily just to the point of running.

713.24-ALUMINUM COATED CORRUGATED STEEL PIPE AND PIPE ARCH:

These conduits shall conform to AASHTO M 36 requirements for aluminum coated or aluminum-zinc coated corrugated steel pipe and pipe arch.

SECTION 714
CONCRETE, CLAY, FIBER AND PLASTIC PIPE

714.1-NONREINFORCED CONCRETE PIPE:

This pipe shall conform to the requirements of AASHTO M 86 or ASTM C 14.

714.2-REINFORCED CONCRETE CULVERT, STORM DRAIN AND SEWER PIPE:

This pie shall conform to the requirements of AASHTO M 170 or ASTM C 76.

714.3-REINFORCED CONCRETE ARCH CULVERT, STORM DRAIN AND SEWER PIPE:

This pipe shall conform to the requirements of AASHTO M 206 or ASTM C 506.

714.4-REINFORCED CONCRETE ELLIPTICAL CULVERT, STORM DRAIN AND SEWER PIPE:

This pipe shall conform to the requirements of AASHTO M 207 or ASTM

714.5
C 507.

714.5-PERFORATED CONCRETE PIPE:
This pipe shall conform to the requirements of AASHTO M 175 or ASTM C 444.

714.6-POROUS CONCRETE PIPE:
This pipe shall conform to the requirements of AASHTO M 176.

714.7-CONCRETE DRAIN TILE:
This pipe shall conform to the requirements of AASHTO M 178 or ASTM C 412.

714.8-CLAY DRAIN TILE:
Drain Tile shall conform to the requirements of AASHTO M 179 or ASTM C 4.

714.9-VITRIFIED CLAY-LINED REINFORCED CONCRETE PIPE:
Designs for fully lined or half lined pipe of the specified strength classes shall be submitted for approval. The applicable requirements of AASHTO M 170 and AASHTO M 65 or ASTM C 479 shall govern. Liner or liner elements shall be clay of first quality, sound, thoroughly and perfectly burned, without warps, cracks, or other imperfections, and they shall be fully and smoothly glazed.

714.10-CLAY PIPE:
This pipe shall conform to the requirements of ASSHTO M 65 or ASTM C 700. Extra strength clay pipe may be substituted for standard strength.

714.11 AND 714.12-BLANK

714.13-PERFORATED ASBESTOS CEMENT PIPE FOR UNDERDRAINAGE:
The pipe shall conform to the requirements of AASHTO M 189 or ASTM C 508.

714.14-BITUMINIZED FIBER PIPE FOR UNDERDRAINAGE:
This pipe shall conform to the requirements of ASTM D 1861 or ASTM D 1862.

714.15-PERFORATED BITUMINIZED FIBER PIPE FOR UNDERDRAINAGE:
This pipe and fittings shall conform to the requirements of ASTM D 2311.

714.16-FIBERGLASS-REINFORCED (FRP) PIPE:
This pipe shall conform to ASTM D 2996 or ASTM D 2997. Fittings shall

be those recommended by the manufacturer.

714.17-REINFORCED PLASTIC MORTAR (RPMP) PIPE:

This pipe shall conform to ASTM D 3262. Fittings shall be those recommended by the manufacturer.

714.18-REINFORCED CONCRETE END SECTIONS:

Precast reinforced concrete end sections shall conform to the requirements of the cited Specifications for the conduit to the extent to which they apply and to the details shown on the Plans.

714.19-CORRUGATED POLYETHYLENE PIPE:

The pipe shall meet the requirements of AASHTO M 252 for nominal sizes of 3 to 10 inches (75 to 250 mm) and AASHTO M 294 for nominal sizes of 12 to 36 inches (300 to 900 mm).

714.20-PERFORATED PLASTIC SEMICIRCULAR PIPE:

Perforated plastic semicircular pipe shall be extruded or molded using a high density, flexible plastic.

The pipe shall have a smooth or corrugated top and a smooth semicircular bottom, averaging 4 ⅝ inches (116 mm) in diameter, with perforations uniformly distributed along the top of the semicircular section. The perforations shall be not less than ¼ inch (6 mm) nor more than ⅜ inch (10 mm) in diameter, and shall provide a minimum intake area of one square inch per linear foot (2100 sq. mm per m). Minimum material thickness shall be⅛ in. (3 mm). The top flange shall extend a minimum of ½ in. (13 mm) beyond the top of the semi-circular section.

A one foot (300 mm) section of pipe shall deflect no more than 1 ½ at an applied load of 900 lb. (38 mm), using the Parallel Plate Load Test of ASTM D 2412. Fifteen minutes after removal of the load, the pipe section shall have recovered not less than 50 percent of its deflection at 900 lb. (4 kN).

714.21-ACRYLONITRILE-BUTADIENE-STYRENE (ABS) PIPE:

This pipe and fittings shall conform to AASHTO M 264, ASTM D 2680 or ASTM D 2751.

714.22-POLYVINYL CHLORIDE (PVC) PIPE:

This pipe and fittings shall conform to the requirements of AASHTO M278 or ASTM D 3034.

714.23 - PRECAST REINFORCED CONCRETE BOX CULVERTS:

Precast reinforced concrete box culverts shall conform to the requirements of AASHTO M259 where depth of cover is 2 feet (600 mm) or more and AASHTO M273 where depth of cover is less than 2 feet (600 mm). Interstate live load design shall be provided for Interstate highway facilities: andHS20